WHAT IS CLAIMED IS:

1. A composition comprising an addressable collection of two or more nucleic acid molecules that are differentially expressed in hepatocellular carcinoma, wherein the nucleic acid molecules consist essentially of the nucleic acid molecules set forth in any one or more of Tables 1 through 4 or complements, fragments, variants, or analogs thereof.

2. The composition of claim 1 wherein the nucleic acid molecules consist essentially of all the nucleic acid molecules set forth in any one or more of Tables 1 through 4.

3. The composition of claim 1 or 2 wherein the nucleic acid molecules are differentially expressed between hepatocellular carcinoma tissue and non-tumor tissue.

4. A composition comprising an addressable collection of two or more polypeptides that are differentially expressed in hepatocellular carcinoma, wherein the polypeptides consist essentially of polypeptides encoded by the nucleic acid molecules set forth in any one or more of Tables 1 through 4 or complements, fragments, variants, or analogs thereof.

5. The composition of claim wherein the polypeptides consist essentially of the polypeptides encoded by all the nucleic acid molecules set forth in any one or more of Tables 1 through 4.

6. The composition of claim 4 or 5 wherein the polypeptides are differentially expressed between hepatocellular carcinoma tissue and non-tumor tissue.

7. The composition of any one of claims 1 through 6 wherein the nucleic acid molecules or the polypeptides are attached to a solid support.

8. Use of the composition of any one of claims 1 through 7 in the preparation of a medicament for diagnosis or therapy of hepatocellular carcinoma.

9. A method of diagnosing hepatocellular carcinoma in a subject comprising:

obtaining a sample from the subject; and

detecting the level of expression of two or more nucleic acid molecules or expression products thereof in the sample, wherein the nucleic acid molecules consist essentially of the nucleic acid molecules set forth in any one or more of Tables 1 through 4 or complements, fragments, variants, or analogs thereof.

10. The method of claim 9 wherein the sample is liver.

11. The method of claim 9 wherein the sample is serum.

12. The method of any one of claims 9 through 11 wherein the sample is suspected of being cancerous.

13. The method of any one of claims 9 through 11 wherein the sample is non-cancerous.

14. The method of any one of claims 9 through 13 further comprising comparing the level of expression of the nucleic acid molecules or expression products thereof in a non-cancerous sample and in a sample suspected of being cancerous.

15. The method of any one of claims 9 through 14 wherein the subject is suspected of having hepatocellular carcinoma.

16. The method of any one of claims 9 through 15 wherein the nucleic acid molecules consist essentially of all the nucleic acid molecules set forth in any one or more of Tables 1 through 4 or complements, fragments, or analogs thereof.

17. The method of any one of claims 9 through 17 wherein differential expression of the nucleic acid molecules or expression products thereof is indicative of hepatocellular carcinoma.

18. A method of monitoring the progression of hepatocellular carcinoma in a subject comprising:

obtaining a sample from the subject; and

detecting the level of expression of two or more nucleic acid molecules or expression products thereof in the sample, wherein the nucleic acid molecules consist essentially of the nucleic acid molecules set forth in any one or more of Tables 1 through 4, or complements, fragments, variants, or analogs thereof.

19. The method of claim 18 wherein the sample is obtained at two or more time points.

20. The method of claim 18 or 19 wherein the nucleic acid molecules consist essentially of all the nucleic acid molecules set forth in any one or more of Tables 1 through 4 or complements, fragments, variants, or analogs thereof.

21. The method of any one of claims 18 through 20 wherein the sample is liver.

22. The method of any one of claims 18 through 20 wherein the sample is serum.

23. The method of any one of claims 18 through 22 further comprising comparing the level of expression of the nucleic acid molecules or expression products thereof in a non-cancerous sample and in a sample suspected of being cancerous.

24. The method of any one of claims 18 through 23 wherein differential expression of the nucleic acid molecules or expression products thereof is indicative of progression of hepatocellular carcinoma.

25. The method of any one of claims 19 through 24 further comprising comparing the level of expression of the nucleic acid molecules or expression products in the two or more time points.

26. A method of monitoring the efficacy of a hepatocellular carcinoma therapy in a subject comprising:

administering the therapy to the subject;

obtaining a sample from the subject; and

detecting the level of expression of two or more nucleic acid molecules or expression products thereof in the sample, wherein the nucleic acid molecules consist essentially of the nucleic acid molecules set forth in any one or more of Tables 1 through 4, or complements, fragments, variants, or analogs thereof.

27. The method of claim 26 wherein the therapy is administered at two or more administration time points.

28. The method of claim 26 or 27 wherein the sample is obtained at two or more sampling time points.

29. The method of any one of claims 26 through 28 wherein the nucleic acid molecules consist essentially of all the nucleic acid molecules set forth in any one or more of Tables 1 through 4 or complements, fragments, variants or analogs thereof.

30. The method of any one of claims 26 through 29 wherein the sample is suspected of being cancerous.

31. The method of any one of claims 26 through 30 wherein the sample is non-cancerous.

32. The method of any one of claims 26 through 31 further comprising comparing the level of expression of the nucleic acid molecules or expression products thereof in a non-cancerous sample and in a sample suspected of being cancerous.

33. The method of any one of claims 26 through 32 wherein differential expression of the nucleic acid molecules or expression products thereof is indicative of the efficacy of the hepatocellular carcinoma therapy.

34. The method of any one of claims 27 through 33 further comprising comparing the level of expression of the nucleic acid molecules or expression products in the two or more administration time points.

35. The method of any one of claims 28 through 34 further comprising comparing the level of expression of the nucleic acid molecules or expression products in the two or more sampling time points.

36. The method of any one of claims 9 through 35 wherein the subject is a human.

37. A method of screening a compound for treating hepatocellular carcinoma comprising:

contacting a sample with a test compound; and

detecting the level of expression of two or more nucleic acid molecules or expression products thereof in the sample, wherein the nucleic acid molecules consist essentially of the nucleic acid molecules set forth in any one or more of Tables 1 through 4, or complements, fragments, variant or analogs thereof.

38. The method of claim 37 wherein the nucleic acid molecules consist essentially of all the nucleic acid molecules set forth in any one or more of Tables 1 through 4 or complements, fragments, variants or analogs thereof.

39. The method of claim 37 or 38 wherein the samples are selected from the group consisting of cancerous samples and non-cancerous samples.

40. The method of any one of claims 37 through 39 wherein the samples are selected from the group consisting of liver samples and serum samples.

41. The method of any one of claims 37 through 10, further comprising comparing the level of expression of two or more nucleic acid molecules or expression products thereof with a standard.

42. The method of any one of claims 9 through 41, wherein the method is a high throughput method.

43. The method of any one of claims 9 through 42, further comprising preparing a gene expression profile.

44. A solid support comprising two or more nucleic acid molecules that are differentially expressed in hepatocellular carcinoma, wherein the nucleic acid molecules consist essentially of the nucleic acid molecules set forth in Tables 1 through 4 or complements, fragments, variants, or analogs thereof.

45. The solid support of claim 44 wherein the nucleic acid molecules consist essentially of all the nucleic acid molecules set forth in any one or more of Tables 1 through 4.

46. The solid support of claim 44 or 45 wherein the nucleic acid molecules are differentially expressed between hepatocellular carcinoma tissue and non-tumor tissue.

47. A solid support comprising two or more polypeptides that are differentially expressed in hepatocellular carcinoma, wherein the polypeptides consist essentially of polypeptides encoded by the nucleic acid molecules set forth in Tables 1 through 4 or complements, fragments, variants, or analogs thereof.

48. The solid support of claim 47 wherein the polypeptides consist essentially of the polypeptides encoded by all the nucleic acid molecules set forth in any one or more of Tables 1 through 4.

49. The solid support of claim 47 or 48 wherein the polypeptides are differentially expressed between hepatocellular carcinoma tissue and non-tumor tissue.

50. The solid support of any one of claims 47 through 49 wherein the nucleic acid molecules or the polypeptides are covalently attached to the solid support.

51. The solid support of any one of claims 47 through 49 wherein the nucleic acid molecules or the polypeptides are non-covalently attached to the solid support.

52. The solid support of any one of claims 47 through 51 wherein the solid support comprises a microarray.

53. A database comprising information identifying the expression level in liver tissue of two or more nucleic acid molecules or expression products thereof, wherein the nucleic acid molecules consist essentially of the nucleic acid molecules set forth in any one or more of Tables 1 through 4, or complements, fragments, variants, or analogs thereof.

54. The database of claim 53, wherein the liver tissue is selected from the group consisting of cancerous and non-cancerous tissue.